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**CITY OF BROCKTON**

**ADVANCED WATER RECLAMATION FACILITY**

**INDUSTRIAL PRETREATMENT PROGRAM**

**ANNUAL REPORT**

**YEAR ENDING DECEMBER 31, 2021**

**NPDES Permit No. MA0101010**

Submitted by: David Salvador  
Project Manager, Veolia  
Brockton AWRF



February 9th, 2022

Attn: Mr. Justin Pimpare  
U.S. Environmental Protection Agency  
Region 1 Pretreatment Coordinator  
5 Post Office Square, Suite 100, OEP 06-3  
Boston, MA 02109-3912

Attn: Mr. David Burns  
Department of Environmental Protection  
Southeast Regional Office  
20 Riverside Drive  
Lakeville, MA 02347

Re: City of Brockton Annual Industrial Pretreatment Program Report  
January 1, 2021 - December 31, 2021  
NPDES Permit No. 0101010

Please find attached the City of Brockton Industrial Pretreatment Program Annual Report for the period of January 1, 2021 - December 31, 2021 completed by Veolia, the contract operator of the City's Advanced Water Reclamation Facility. If you have any questions regarding the annual report or the pretreatment program in general, please do not hesitate to contact me.

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein; and based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A handwritten signature in black ink, appearing to read 'David Salvador'.

David Salvador, Project Manager  
Veolia Water/Brockton AWRF

Cc: Patrick Hill, Interim DPW Commissioner, City of Brockton  
David Norton, Contract Administrator, Brockton AWRF  
Darlene Domingos, Vice President of Operations, Veolia East



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### ***(1) AN UPDATED LIST OF ALL INDUSTRIAL USERS BY CATEGORY***

The following is a list of industries located in Brockton that discharge to the City of Brockton's Advanced Water Reclamation Facility. The industries are divided into two groups.

1. Class 1 Industries are the Significant Industrial Users<sup>2</sup> (SIU's) including those industries identified by the Code of Federal Regulations as Categorical Industries (CIU's). All of the SIU's have been issued permits in accordance with the guidelines set forth in Brockton's Sewer Use Ordinance and the Industrial Pretreatment Program. All SIU's are subjected to a minimum of one annual inspection. All SIU's are required to self-monitor at least bi-annually. All SIU's are subjected to a minimum of one unannounced sampling event per year. The CIU's are subjected to unannounced sampling events a minimum of two times per year.
2. Class 2 Industries are the Non-Significant Industrial Users who discharge some type of wastewater in addition to domestic wastewater, or have chemicals stored on site that may pose a hazard if a spill occurs that enters the sewer system. These companies are sent surveys at least once every five years and are subjected to an inspection and/or sampling event if warranted. The dentists have been included as Class 2 Industries. In compliance with the Dental Effluent Guidelines, a list of all dentists who discharge into the Brockton Sewer System has been established. Dental offices discharge mercury present in amalgam used in fillings. During 2021, a completed one-time compliance report has been received from all of the dental dischargers of this Control Authority. Two new dentists have been found this year and one time certifications have been received from both. Initial inspections of eighteen dentist office's amalgam separators did occur this year. (We found two new dentists offices and five existing dentists had retired or moved.) Seven inspections of Class 2 Industries were performed this past year to make sure they are still in the proper category.

<sup>1</sup>The list was compiled using the information contained in previous industrial pretreatment program reports, the internet, the sewer and water use records at City Hall, and driving around the service area to check for new businesses.

<sup>2</sup>Significant Industrial User - Any Industrial User of the City's wastewater disposal system who (i) has a discharge flow of 25,000 gallons or more per average work day, or (ii) has a flow greater than 5% of the flow in the City's wastewater treatment system, or (iii) has in his wastes toxic pollutants as defined pursuant to Section 307 of the Clean Water Act, or (iv) is found by the City, Massachusetts Department of Environmental Protection, or the U.S. Environmental Protection Agency (EPA) to have significant impact, either singly or in combination with other contributing industries, on the wastewater treatment system, the quality of sludge, the system's effluent quality, or air emissions generated by the system.



**CLASS 1 INDUSTRIES (SIGNIFICANT INDUSTRIAL USERS)****Categorical Industrial Users (CIU's)**

<b><u>INDUSTRY NAME</u></b>	<b><u>ADDRESS</u></b>	<b><u>CATEGORICAL STANDARD</u></b>	<b><u>AVERAGE DAILY DISCHARGE (GPD)</u></b>
Barbour Corp.	1001 N. Montello St., Brockton	463.16	6230
GTR Finishing	One Jonathan Drive, Brockton	433.17	1750
Lyne Labs	10 Burke Drive, Brockton	439.46 & 433.17	336
Atrenne Computing Solutions	10 Mupac Drive, Brockton	433.17	1707
Whitman Company	356 South Avenue, Whitman	433.14	748

**Zero Discharge Categorical Industrial Users**

<b><u>INDUSTRY NAME</u></b>	<b><u>ADDRESS</u></b>	<b><u>CATEGORICAL STANDARD</u></b>
GTR Manufacturing	One Jonathan Drive, Brockton	433.17

**Non-Categorical SIUs**

<b><u>INDUSTRY NAME</u></b>	<b><u>ADDRESS</u></b>	<b><u>AVERAGE DAILY DISCHARGE (GPD)</u></b>
Signature Healthcare/Brockton Hospital	680 Centre St., Brockton	49323
Churchill Linen	7 Evans St., Brockton	39402
Concord Foods	10 Minuteman Way, Brockton	60925
Crown Uniform & Linen	309 Battles St., Brockton	53720
Curahealth-Stoughton	909 Sumner St., Stoughton	35000
Good Samaritan Medical Center	235 N. Pearl St., Brockton	70560
VA Hospital	940 Belmont St., Brockton	54000
Bay State Linen	45 Industrial Blvd., Brockton	47583

**CLASS 2 INDUSTRIES**

<b><u>INDUSTRY NAME</u></b>	<b><u>ADDRESS</u></b>	<b><u>CITY/TOWN</u></b>
Brockton Area Transit Authority	144 Main St	Brockton
Boston Fresh	102 W Chestnut St	Brockton
Cindy's Kitchen	40 Industrial Blvd	Brockton
Express Machinery	362 Warren Ave	Brockton
FootJoy Acushnet Co	144 Field St	Brockton
FB Washburn Candy Co	137 Perkins Ave	Brockton
Goddard Medical Assoc.	110 Liberty St	Brockton
In Good Health	120 W Chestnut St	Brockton
Massasoit College	770 Centre St	Brockton
Spence & Company	76 Campanelli Dr.	Brockton
Trojan Recycling Inc	71 Forest St	Brockton
Uno Foods, Inc	180 SPARK St	Brockton
U.S. Laboratory	2 Jonathan Drive	Brockton



US Postal Vehicle Maint  
Whitman & Die Co

149 Crescent St  
72 Raynor Ave

Brockton  
Whitman

**DENTISTS**

**ADDRESS**

**CITY/TOWN**

Ace Dental	601 Pleasant St	Brockton
All Ages Dental Associates	478 Torrey St STE 1	Brockton
Arch Dental Clinic	200 Westgate Drive STE 2	Brockton
Aspen Dental	165 Westgate Drive	Brockton
Belmont Family Dental	185 Belmont St	Brockton
Brockton Family Dental Center	472 West Elm St	Brockton
Brockton Neighborhood Health Center	63 Main St	Brockton
Brockton Pediatric Dentistry	304 Pleasant St	Brockton
Children & Family Dental & Braces	70 Westgate Drive	Brockton
Creative Smiles Dental Care	907 Main St	Brockton
Courtland Dental & Braces	715 Crescent St	Brockton
Dental Dreams LLC	698 Crescent St	Brockton
Gentle Dental Center of Brockton	641 Belmont St	Brockton
Harris Dental Associates	348 N Pearl St	Brockton
Massasoit Dental Associates	288 Belmont St	Brockton
Karen Martin Phillips DMD	478 Torrey St UNIT 9	Brockton
Pleasant Family Dental PC	556 Pleasant St	Brockton
Rashmi J Shah DMD	1091 N Main St	Brockton
Unident Dental Center	200 Westgate Drive STE 119	Brockton
Bill Vagenas DMD	5 Torrey St	Brockton
VA Boston Healthcare Dental	940 Belmont St	Brockton

**NO AMALGAM SEPARATORS**

Gabriella Babu DDS	839 Pleasant St	Brockton
Bristol Dental Group	336 Pleasant St	Brockton

**RETIRED OR MOVED**

Daniel D Winkler DMD	400 West St	Brockton
Lennard Lindsey DDS	1034 N Main St	Brockton
Micheal D Keefe DDS	111 Torrey St	Brockton
James M Heller DDS	1350 Belmont St	Brockton
Metro South Dental Group	79 Byron Ave	Brockton
Richard J Celli DMD	185 Belmont St	Brockton
Morris B Cohen	478 Torrey St	Brockton

**NEW DENTISTS**

A-One Dental	772 Belmont St	Brockton
Medella Dental	1034 N Main St	Brockton



## **CHANGES TO THE SIU LIST FROM THE PREVIOUS YEAR**

**Additions:** None

**Deletions:** None

**Changes:** None

## **SIU COMPLIANCE STATUS**

### **Baseline Monitoring Reporting Requirements for newly promulgated industries**

All CIUs are in compliance with Baseline Monitoring Reporting Requirements

### **Compliance Status Reporting Requirements for newly promulgated industries**

There were no newly promulgated industries during the year.

### **Self-Monitoring Reporting Requirements**

Lyne Laboratories failed to test for July reporting.

### **Compliance with Categorical Standards**

All CIU's are in compliance.

### **Compliance with Local Limits**

Bay State Linen was not in compliance with the local limit for Copper on 7/14/21 and 11/11/21 and not in compliance with the local limit for Fats, Oil and Grease (FOG) on 1/8/21 & 6/10/21. Churchill Linen Services was not in compliance with the local limit for Fats, Oil and Grease (FOG) on 7/19/21.



## ***(2) SUMMARY OF COMPLIANCE AND ENFORCEMENT ACTIVITIES***

### **SIGNIFICANT INDUSTRIAL USERS INSPECTED BY THE POTW**

<b><u>Name of Industry</u></b>	<b><u>Inspection Date</u></b>
Atrenne Computing Solutions	05/11/21
Barbour Corporation	05/14/21
Bay State Linen	05/25/21
Churchill Linen	05/18/21
Concord Foods	06/09/21
Crown Linen	05/20/21
Curahealth-Stoughton	04/16/21
Good Samaritan Medical Center	04/02/21
GTR Finishing	06/01/21
GTR Manufacturing	06/01/21
Lyne Labs	06/11/21
Signature Healthcare Brockton Hospital	05/07/21
VA Hospital	06/17/21
Whitman Company	05/04/21

### **SIGNIFICANT INDUSTRIAL USERS SAMPLED BY THE POTW**

<b><u>Categorical Industrial Users</u></b>	<b><u>Sample Date</u></b>
Atrenne Computing Solutions	04/21/21, 09/21/21
Barbour Corporation	03/03/21, 09/09/21
GTR Finishing	03/03/21, 09/21/21
Lyne Laboratories	04/06/21, 10/13/21
Whitman Company	03/03/21, 09/09/21

### **Zero discharging CIUs**

GTR Manufacturing	Zero Discharge
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### **Non-Categorical SIUs**

<b><u>Non-Categorical SIUs</u></b>	<b><u>Sample Date</u></b>
Bay State Linen	03/23/21
Churchill Linen	03/19/21
Concord Food	09/22/21
Crown Linen	03/30/21

### **BMPs for Hospitals**

Signature Healthcare Brockton Hospital  
Curahealth-Stoughton  
Good Samaritan Medical Center  
Veterans Administration Medical Center



### **COMPLIANCE SCHEDULES ISSUED**

No compliance schedules were issued.

### **NOTICES OF VIOLATION ISSUED**

<u>Name of Industry</u>	<u>Enforcement Action</u>	<u>Date of Violation</u>	<u>Date of Issue</u>
Bay State Linen	NOV (Copper)	07/14/21	08/24/21
Bay State Linen	NOV (FOG)	01/08/21	02/23/21
Bay State Linen	NOV (FOG)	06/10/21	08/15/21
Bay State Linen	NOV (Copper)	11/11/21	01/18/22
Churchill Linen	NOV (FOG)	07/19/21	08/27/21
Lyne Laboratories	NOV (no sampling for July report )	07/01/21	10/28/21

### **PENALTIES OBTAINED**

None

### ***(3) A LIST OF SIGNIFICANTLY VIOLATING INDUSTRIES REQUIRED TO BE PUBLISHED IN THE NEWSPAPER***

Lyne Laboratories was in SNC for failure to collect and analyze samples for their July self-monitoring report.

Bay State Linen was in SNC for FOG during the period between 1/1/21-6/30/21. The TRC results of 33% equal or exceeding the TRC value of 140 mg/L. The sampling results were 182 mg/L (1/8/21) and 196 mg/L (6/10/21). During the period between 7/1/21 - 12/21/21, 33% of the copper sampling results exceeded the TRC value of 0.768 mg/L. The sample results were: 2.17 mg/L (7/14/21) and 0.780 mg/L (11/11/21).

The SNC for both industries was published in the Brockton Enterprise Legal Section on Friday, January 28th, 2022.



#### ***(4) PROGRAM EFFECTIVENESS / PRESENT and PROPOSED CHANGES***

This past year's focus was to perform initial inspections for every dentist that has completed their one time certifications. During these inspections it was discovered that five dentists had retired or moved. Eighteen dentists were inspected for the first time and educated on how to be in compliance with the IPP dental program. There are two new dentists who have completed their one-time certification and will have initial inspections this coming year. Additionally, there were seven Class 2 Industries inspected to make sure there were no changes in processes which would reclassify them to significant industrial users.

A summary of all of the influent, effluent and sludge sampling results for 2021 is included in Section (5) "Summary of Pollutant Analytical Results", Tables 1 through 6.

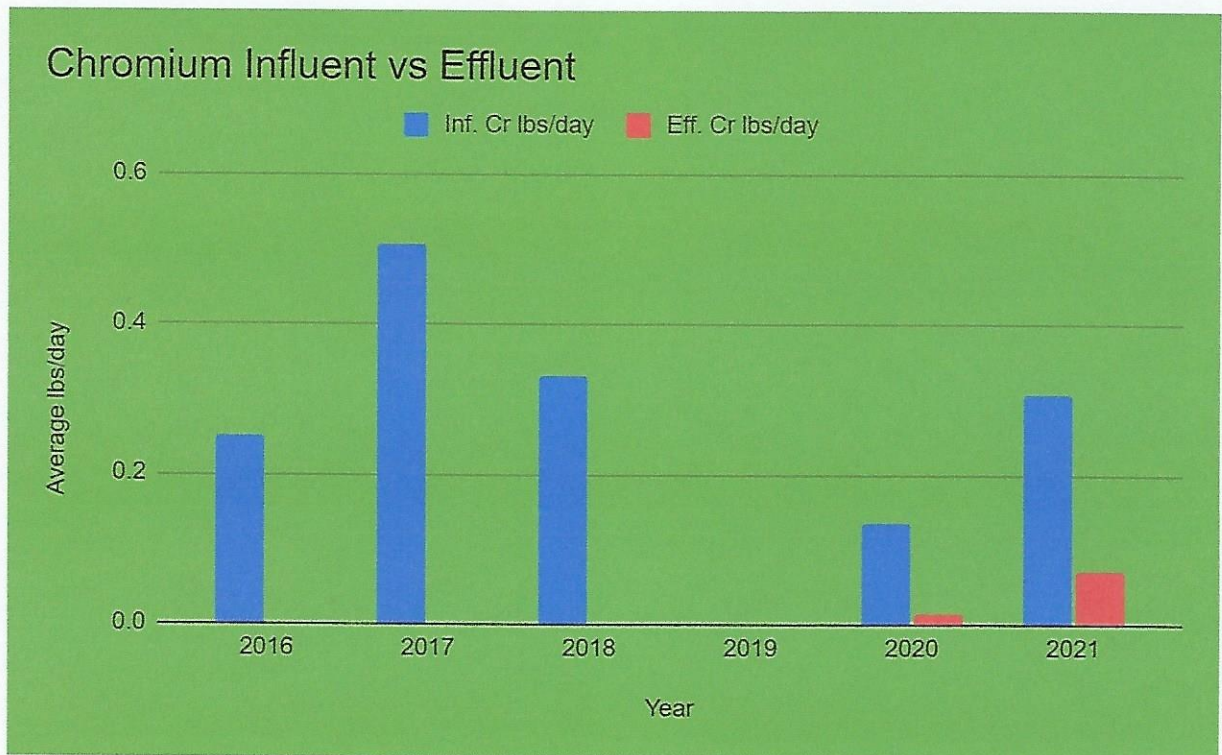
Section (5), Table 1, a summary of influent and effluent conventional pollutants, shows how effective the plant process is in removing conventional pollutants. The annual average TSS in the effluent was 1 mg/L. The annual average cBOD in the effluent was also 1 mg/L. The plant consistently meets 99% removal for TSS and cBOD. The annual average for phosphorus was 0.08 mg/L and 0.42 mg/L for ammonia.

The 2021 pretreatment sampling data showed that five metals: Chromium, Copper, Lead, Nickel, and Zinc are present in the influent. These five metals have consistently shown up in the raw influent. Copper and Zinc are common in domestic waste streams due to copper piping and the presence of Zinc in many personal care products. Lead and Nickel were at levels slightly above last year's results. The source of these metals is not known. Although these might be common in the discharge from metal finishing operations, the three metal finishing operations discharging to the plant, GTR Finishing, Whitman Company and Atrenne have been in compliance with permitted standards. Section (5), Table 2, influent sampling results versus threshold inhibitory concentrations, show Lead and Nickel significantly below both the inhibitory threshold levels for activated sludge and nitrification. Zinc levels at 0.074 mg/L are below the inhibitory threshold level for nitrification (0.08 mg/L) and well below the inhibition threshold for activated sludge (0.3 mg/L). Copper levels at 0.0575 mg/L are below the inhibition threshold for activated sludge (1.0 mg/L) but slightly exceed the inhibitory threshold level for nitrification (0.05 mg/L). Despite this, there were no issues achieving nitrification at the facility in 2021 and no issues with meeting permitted ammonia discharge limits.

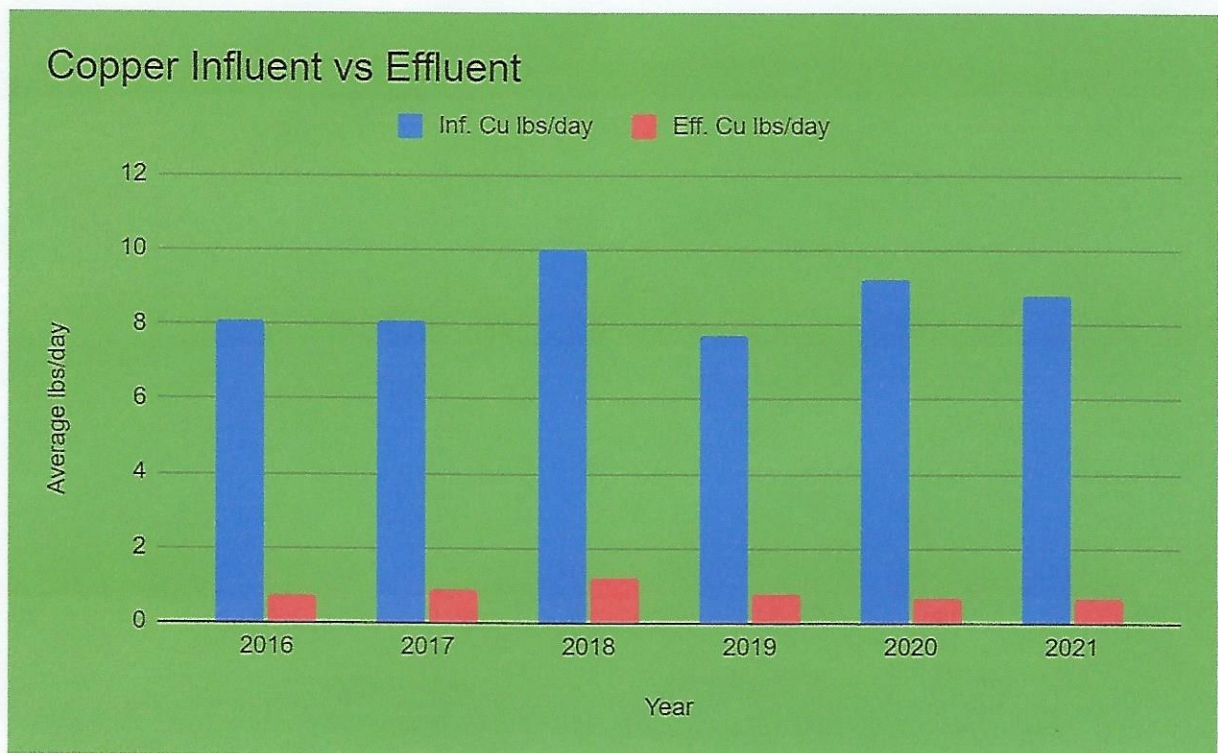
The effluent sampling data for this pretreatment year shows chromium, copper, lead, nickel and zinc at detectable levels. The receiving water for the facility is the Salisbury Plain River which discharges to the Taunton River Watershed. The Salisbury Plain River is a small tributary with an instream 7Q10 flow of 0.39 MGD. Section (5), Table 3, effluent sampling results versus water quality criteria, shows that all of the parameters tested were below the freshwater acute water quality criteria. Copper at 4.6 ug/L is below the chronic water quality criteria value of 5.67 ug/L which was calculated as a hardness dependent metal with a receiving water hardness of 48 mg/L.

The graphs below demonstrate the influent and effluent metals loadings (for metals that were present) over the past six years. Influent loadings are indicated in blue. Effluent loadings are indicated in red.



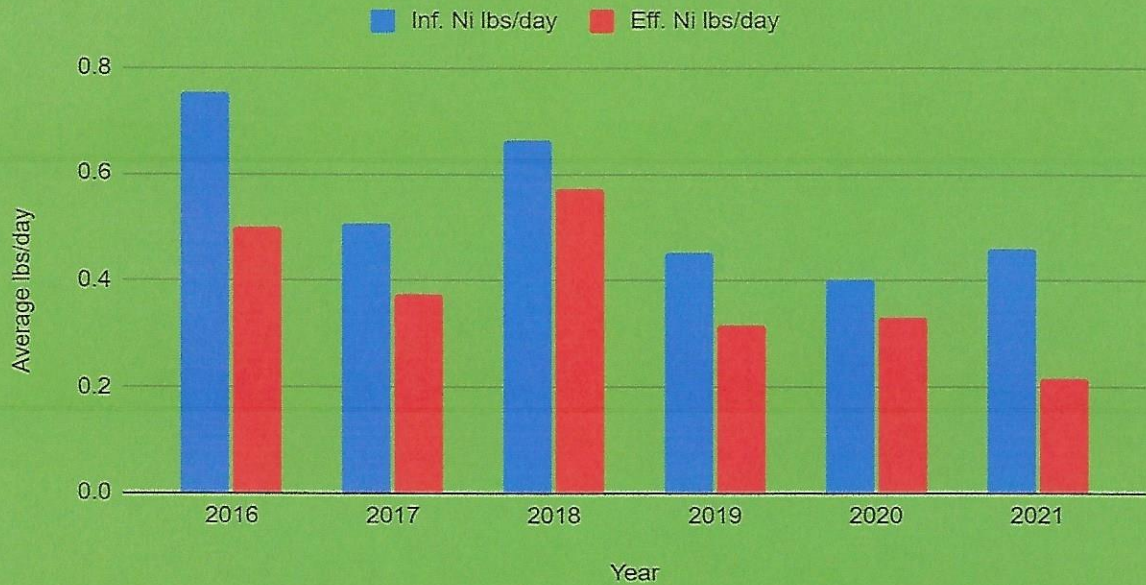


**Note:** There were no detectable levels of Chromium in the influent or the effluent in the 2019 sampling events.

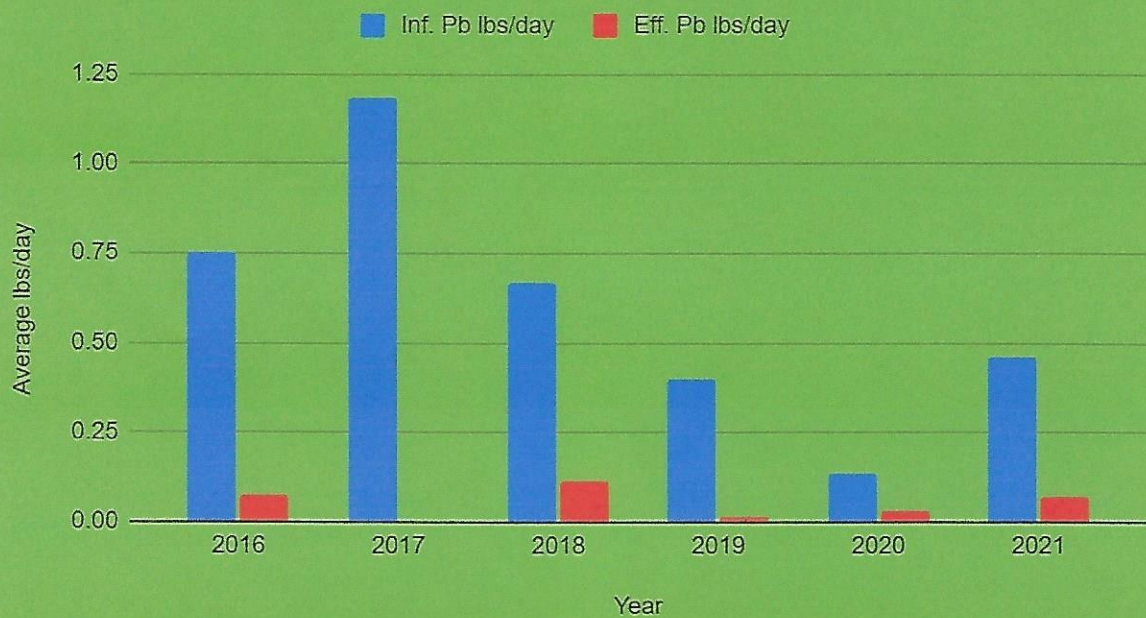




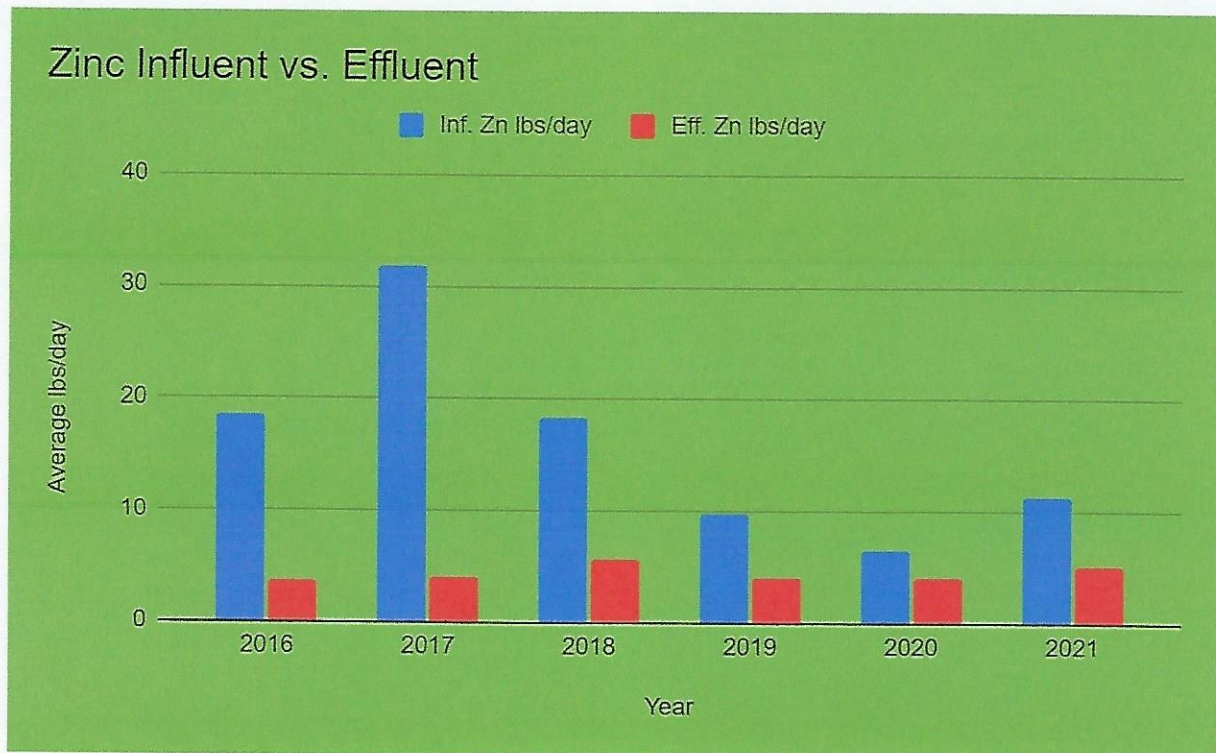
### Nickel Influent vs. Effluent



### Lead Influent vs. Effluent







Testing of the sludge was conducted throughout the year. The testing results are summarized in Section (5) Table 5. The start of the table displays the amount of sludge that was dewatered and hauled to Naugatuck, CT, where the sludge is incinerated. The remaining data includes additional solids testing along with metal testing that is required by the NPDES permit issued to the Borough of Naugatuck. The data demonstrates that the sludge generated from the Brockton AWRF and fired in the sewage sludge incinerator in Naugatuck, CT is in compliance with the requirements of 40 CFR part 503 subpart E. The information provided in Table 5 demonstrates that the requirements of the National Emission Standards for Mercury and Beryllium are met. Copies of Section 9 and Table H from the Borough of Naugatuck's NPDES permit, specifying the testing requirements for their Regional Municipal Sludge Incinerator Facilities are on file at Brockton AWRF.

The approval of the revised City of Brockton's Sewer Use Ordinance (Chapter 23 - Water, Sewer and Sewage Disposal) took place on October 23, 2019. The issuance of the new document is currently on the City's website.



##### ***(5) SUMMARY OF POLLUTANT ANALYTICAL RESULTS***

Table 1 is a Summary of Influent and Effluent Results for Conventional Pollutants

Table 2 is a comparison of influent sampling results versus threshold inhibitory concentrations for the City of Brockton's Advanced Water Reclamation Facility.

Table 3 is a comparison of effluent sampling results versus water quality standards.

Table 4 is a summary of the toxicity and bioassay data for the pretreatment year.

Table 5 is a summary of the biosolids data and metals concentrations in the sludge cake.

All raw data sheets and quality assurance and control procedures are available upon request. Additional data is available on the Discharge Monitoring Reports (DMR's) submitted monthly by the Brockton Advanced Water Reclamation Facility to the Massachusetts Department of Environmental Protection and the United States Environmental Protection Agency and is also available upon request.



Table 1-Summary of Influent and Effluent Conventional Pollutants

	INF	Inf cBOD	Inf cBOD	Inf TSS	Inf TSS	Inf NH3	Inf NH3	Inf P	Inf P	Eff Q	FPE cBOD	FPE cBOD	FPE TSS	FPE TSS	FPE NH3	FPE NH3	FPE P	FPE P
	MGD	mg/l	lbs/day	mg/l	lbs/day	mg/l	lbs/day	mg/l	lbs/day	MGD	mg/L	lbs/day	mg/l	lbs/day	mg/l	lbs/day	mg/l	lbs/day
Jan '21	17.71	261	37,840	301	43,757	20.0	2,922	5.64	822	17.39	1	145	1	159	0.66	95	0.08	12
Feb '21	18.53	205	30,835	218	32,739	20.1	2,997	4.24	650	18.25	1	152	1	152	1.21	180	0.10	15
Mar '21	17.02	234	31,142	251	33,331	21.9	2,929	5.13	719	16.27	1	140	1	161	1.23	172	0.08	10
Apr '21	19.57	200	29,493	137	20,158	21.1	2,965	4.58	736	17.80	1	164	1	163	0.75	108	0.10	14
May '21	16.67	229	29,534	248	31,526	21.6	2,805	4.58	626	15.53	1	130	1	172	0.42	57	0.09	11
Jun '21	16.67	235	26,678	304	34,601	23.1	2,585	4.91	616	13.66	1	147	2	265	0.34	39	0.11	12
Jul '21	21.29	158	22,579	175	26,070	13.6	2,140	3.66	686	18.98	1	169	1	191	0.10	16	0.07	11
Aug '21	17.20	202	25,771	281	36,087	15.2	1,950	4.26	562	15.38	1	132	1	136	0.18	28	0.06	8
Sep '21	18.40	189	25,121	257	34,622	14.7	2,075	3.65	548	17.31	1	144	1	162	0.09	16	0.07	11
Oct '21	18.53	244	34,972	374	53,151	16.7	2,502	4.80	654	18.13	1	151	1	166	0.03	4	0.07	11
Nov '21	19.57	224	34,806	301	46,934	18.5	2,837	4.22	679	18.78	1	157	1	168	0.03	4	0.07	11
Dec '21	14.43	242	29,022	387	46,390	22.4	2,750	5.88	704	14.33	1	119	1	140	0.03	4	0.05	6
Average	17.97	219	29,816	269	36,614	19.1	2,622	4.63	667	16.82	1	146	1	170	0.42	60	0.08	11



**TABLE 2**  
**INFLUENT SAMPLING RESULTS**  
**VERSUS**  
**THRESHOLD INHIBITORY CONCENTRATIONS**  
**FOR THE BROCKTON ADVANCED WATER RECLAMATION FACILITY**  
(All data are in mg/L)

<u>Pollutant</u>	<u>Raw Influent Data</u> <sup>1</sup>	Activated Sludge Minimum Reported Inhibition Threshold <u>Level</u> <sup>2</sup>	Nitrification Minimum Reported Inhibition Threshold <u>Level</u> <sup>2</sup>
Arsenic	0.0010	0.1	1.5
Cadmium	0.0005	1	5.2
Chromium (T)	0.0020	1	0.25
Copper	0.0575	1	0.05
Lead	0.0030	1.0	0.5
Mercury	0.0001	0.1	N/A
Nickel	0.0030	1	0.25
Silver	0.0005	N/A	N/A
Zinc	0.0740	0.3	0.08
Cyanide	0.0050	0.1	0.34

<sup>1</sup>Raw influent sampling consisted of one 24-hour flow-proportional composite sampling event (4/14/21) for metals and four grab samples (4/14/21) composited into one sample for analysis) for cyanide. In addition, influent copper sampling is completed on the first and second Tuesday of each month.

<sup>2</sup>The activated sludge and nitrification inhibition threshold levels are the minimum reported from Appendix G of the EPA's Local Limits Development Guidance Appendices, July 2004.



**TABLE 3**  
**EFFLUENT SAMPLING RESULTS**  
**VERSUS**  
**WATER QUALITY CRITERIA<sup>1</sup>**  
 (All data are in ug/L)

<u>Pollutant</u>	<u>Effluent Data<sup>2</sup></u>	<u>Freshwater Aquatic Life</u>	
		<u>CMC<sup>3</sup></u>	<u>CCC<sup>3</sup></u>
Arsenic	1.0	340	150
Cadmium*	0.5	0.921	0.422
Chromium (T)	0.5	NA	NA
Chromium (hex)		16	11
Chromium (tri)*		318.59	41.44
Copper*	4.6	6.86	4.88
Lead*	0.5	29.38	1.14
Mercury	0.1	1.4	0.77
Nickel*	1.5	256.68	28.51
Silver*	0.5	0.93	N/A
Zinc*	35.0	64.18	64.70
Cyanide	5	22	5.2

<sup>1</sup>Water quality criteria were obtained from the National Recommended Water Quality Criteria downloaded from <http://www.epa.gov/ost/criteria/wqctable>. Water quality based limitations are established with the use of a calculated available dilution. The Brockton Advanced Water Reclamation Facility has a design flow of 20.48 MGD. The instream 7Q10 flow of the Salisbury Plan River is 0.39 MGD. The dilution ratio is calculated at  $(20.48 \text{ MGD} + 0.39 \text{ MGD}) / 20.48 \text{ MGD} = 1.02$



<sup>2</sup>Effluent sampling consisted of one 24-hour flow-proportional composite sample (4/14/21) for all metals and four grab samples for cyanide (4/14/21), were composited into one sample for analysis. In addition, the results for cadmium, copper, lead, nickel and zinc analysis from the 2021 toxicity testing are included as well as the monthly effluent copper values. All effluent results were averaged to obtain the values in Table 3.

<sup>3</sup>The Criteria Maximum Concentration (CMC) is an estimate of the highest concentration of a material in surface water to which an aquatic community can be exposed briefly without resulting in an unacceptable effect. The Criterion Continuous Concentration (CCC) is an estimate of the highest concentration of a material in surface water to which an aquatic community can be exposed indefinitely without resulting in an unacceptable effect.

\*These metals are hardness dependent. The hardness dependent criterion was calculated based on a  $\text{CaCO}_3$  hardness of 48 mg/L. This hardness was determined by averaging the four 2021 whole effluent toxicity tests receiving water hardness values.

Receiving Water Hardness Data from the four 2021 WET tests (Average of diluent replicates)	
58 mg/L	43 mg/L
35 mg/L	56 mg/L

All hardness dependent metals were calculated using the equation provided in Appendix A & Appendix B of the EPA's National Recommended Water Quality Criteria. For example, the water quality criterion for total Nickel was calculated as follows, based on a  $\text{CaCO}_3$  hardness of **48 mg/L**:

Acute Nickel Criteria (CMC)	Chronic Nickel Criteria (CCC)
$e\{M_A [\ln (\text{hardness})] + b_A\}$ (Correction Factor)	$e\{M_C [\ln (\text{hardness})] + b_C\}$ (Correction Factor)
$e\{(.8460)(3.8712) + 2.255\}$ (.998)	$e\{(.8460)(3.8712) + .0584\}$ (.997)
$e\{(3.275) + 2.255\}$ (.998)	$e\{(3.2750) + .0584\}$ (.997)
$e\{(5.530)\}$ (.998)	$e\{(3.3334)\}$ (.997)
$(252.144)$ (.998) = 251.64 ug/L	$(28.0334)$ (.997) = 27.949 ug/L
Acute Copper Criteria (dilution x criteria)	Chronic Copper Criteria (dilution x criteria)
$(1.02) (251.64) = 256.68$ ug/L	$(1.02) (27.949) = 28.51$ ug/L



**TABLE 4**  
**Summary of the Toxicity and Bioassay Data**

	<b>Result</b>	<b>Permit Limit</b>
<b>High Flow Event #1 September 2021</b>		
LC-50 48-hr Acute Ceriodaphnia	100%	100%
NOEL 7-day Chronic Ceriodaphnia	100%	≥98%
<b>High Flow Event #2 October 2021</b>		
LC-50 48-hr Acute Ceriodaphnia	79.4%	100%
NOEL 7-day Chronic Ceriodaphnia	50%	≥ 98%
<b>1st Bi-Annual 2021 - August 2021</b>		
LC-50 48-hr Acute Ceriodaphnia	100%	100%
NOEL 7-day Chronic Ceriodaphnia	100%	≥ 98%
<b>2nd Bi-Annual 2021 - November 2021</b>		
LC-50 48-hr Acute Ceriodaphnia	100%	100%
NOEL 7-day Chronic Ceriodaphnia	100%	≥ 98%



**Table 5 - Sludge Cake Metal Average Daily Summary**

Month	Sludge Dewatered gals	Sludge Cake Total solids %	Dry Tons hailed	Arsenic Cake MG/KG	Cadmium Cake mg/kg	Chromium Cake mg/kg	Lead Cake mg/kg	Nickel Cake mg/kg	Beryllium Cake mg/kg	Mercury Cake mg/kg
Jan 2021	147,155	25.94	12.87	9,150	1,890	26,800	13.70	11.20	0.15	0.53
Feb 2021	147,021	25.48	12.99	8,450	1,160	18,100	11.90	10.90		0.12
Mar 2021	149,878	25.72	15.52	8,850	1,470	18,200	12.00	11.00		
Apr 2021	160,177	25.76	16.18	5,400	1,430	15,000	11.50	9.13	0.20	0.11
May 2021	144,146	26.29	14.27	5,735	1,485	22,100	14.60	9.66		0.12
Jun 2021	153,817	26.81								
Jul 2021	165,244	26.23	15.40	5,210	1,280	35,700	19.80	13.10	0.19	0.11
Aug 2021										
Sep 2021	180,259	26.97	14.25	6,640	1,870	32,400	21.00	12.10		
Oct 2021										
Nov 2021	159,074	25.36	14.51	8,070	1,800	22,900	23.10	14.20		
Dec 2021										
Minimum	144,146	25.36	12.87	5,210	1,160	15,000	11.50	9.13	0.15	0.11
Maximum	180,259	26.97	16.18	9,150	1,890	35,700	23.10	14.20	0.20	0.53
Average	156,308	26.06	14.50	7,188	1,548	23,900	15.95	11.41	0.18	0.20



#### ***(6) DESCRIPTION OF INTERFERENCE AND PASS-THROUGH***

There was no evidence of interference and pass-through during the year.

#### ***(7) INVESTIGATION INTO INTERFERENCE AND PASS-THROUGH***

There was no evidence of interference and pass-through during the year.

#### ***(8) MONITORING, SEWER INSPECTIONS, AND EVALUATIONS TO DETECT INTERFERENCE AND PASS-THROUGH***

Monitoring, inspecting and evaluating to detect interference and pass-through is continuous and ongoing. Unannounced sampling events at the SIUs occur at least once a year. The POTW is staffed 24 hours a day, 7 days a week. Operators sample many process locations daily and if needed, the laboratory staff will analyze the samples to determine if there is any unusual influent wastewater entering the facility. All observations are documented in the operator's daily log book.

#### ***(9) ACTIONS TAKEN TO REDUCE THE INCIDENCE OF VIOLATIONS***

When a violation is reported or found, the severity of the violation is determined. An Industrial User (IU) will receive either a telephone call, e-mail or a letter for a minor violation. The IU will receive a notice of violation (NOV) for a more serious violation or repeated violation. A violation that interferes with or adversely impacts the operation of the POTW or sewerage system results in an unannounced inspection and/or sampling of the facility. The City will then issue an enforcement action. A follow up meeting and inspection with the facility representative will take place.

#### ***(10) LOCAL LIMITS***

<u>Parameter</u>	<u>Local Limit</u>
Copper	0.168 mg/L (interim limit of 0.64 mg/l)*
Lead	1.24 mg/L
Silver	1.59 mg/L
Zinc	4.05 mg/L
Total Cyanide	1.00 mg/L

\*The approved and adopted local limit for copper is 0.168 mg/l. However, an interim local limit of 0.64 mg/l was developed from the interim NPDES limit set for copper in the administrative order dated March 25, 1996.



## EPA Region 1 Annual Pretreatment Report Summary Sheet

Brockton Advanced Water Reclamation Facility

POTW Name

MA0101010

NPDES Permit #

January 1, 2021

Pretreatment Report Period Start Date

December 31, 2021

Pretreatment Report Period End Date

14

# of Significant Industrial Users (SIUs):

0

# of SIUs Without Control Mechanisms:

0

# of SIUs not Inspected:

0

# of SIUs not Sampled:

2

# of SIUs in Significant Noncompliance (SNC)  
with Pretreatment Standards:

0

# of SIUs in SNC with Reporting  
Requirements:

0

# of SIUs in SNC with Pretreatment  
Compliance Schedule:

2

# of SIUs in SNC Published in Newspaper:

0

# of SIUs with Compliance Schedules:



6

# of Violation Notices Issued to SIUs:

0

# of Administrative Orders Issued to SIUs:

0

# of Civil Suits Filed Against SIUs:

0

# of Criminal Suits Filed Against SIUs:

6

# of Categorical Industrial Users (CIUs):

1

# of CIUs in SNC:

\$ 0

Penalties

Total Dollar Amount of Penalties Collected

0

# of IUs from which Penalties have been collected:

Local Limits

August 2017

Date of Most Recent Technical  
Evaluation of Local Limits:

March 1996

Date of Most Recent Adoption of  
Technically Based Local Limits:

Pollutant	Limit (mg/l)	MAHL (lb/day)
Copper	0.168 mg/L (interim limit of 0.64 mg/l)*	
Lead	1.24 mg/L	
Silver	1.59 mg/L	
Zinc	4.05 mg/L	
Total Cyanide	1.00 mg/L	



10B | FRIDAY, JANUARY 28, 2022 | THE ENTERPRISE

Legals

Legals

Legals

204 SUMMER ST

Legals

**INDUSTRIAL PRETREATMENT PROGRAM  
LEGAL NOTICE**



**"City of Champions"  
Department of Public  
Works**

**INDUSTRIAL PRETREATMENT PROGRAM**

In accordance with the United States Environmental Protection Agency regulations, 40 CFR 403.8 (f) (2) (vii) and the City of Brockton Sewer Use Ordinance, the City is required to publish annually, at a minimum, a list of all companies that are or have been in Significant Noncompliance (SNC) with applicable discharge pretreatment standards or other pretreatment requirements during a twelve (12) month period.

Bay State Linen, 45 Industrial Blvd, Brockton, is in Significant Non-Compliance during the 2021 Industrial Pretreatment calendar year. The Technical Review Criteria (TRC) Non-Compliance Violation is defined as, those in which thirty-three percent or more of all of the measurements for each pollutant parameter taken during a six-month period equal or exceed the product of the daily maximum limit or the average limit multiplied by the applicable TRC (TRC = 1.4 for BOD, TSS, FOG and 1.2 for all other pollutants except for pH). During the period of 1/1/21-6/30/21, 33% of the Fats, Oils and Grease sampling results exceeded the TRC value of 140 mg/L. The sample results were: 182 mg/L (1/8/21) and 196 mg/L (6/10/21). During the period of 7/1/21 - 12/31/21 33% of the Copper sampling results exceeded the TRC value of 0.768 mg/L. The sample results were: 2.17 mg/L (7/14/21) and 0.780 mg/L (11/11/21).

Lyne Laboratories, Inc., 10 Burke Drive, Brockton, is in Significant Non-Compliance during the 2021 Industrial Pretreatment calendar year for failure to collect and analyze samples for July self-monitoring report.

Submitted by:  
David Salvador  
Project Manager  
Veolia Brockton AWRF

AD# 14007130  
BE 01/28/2022